

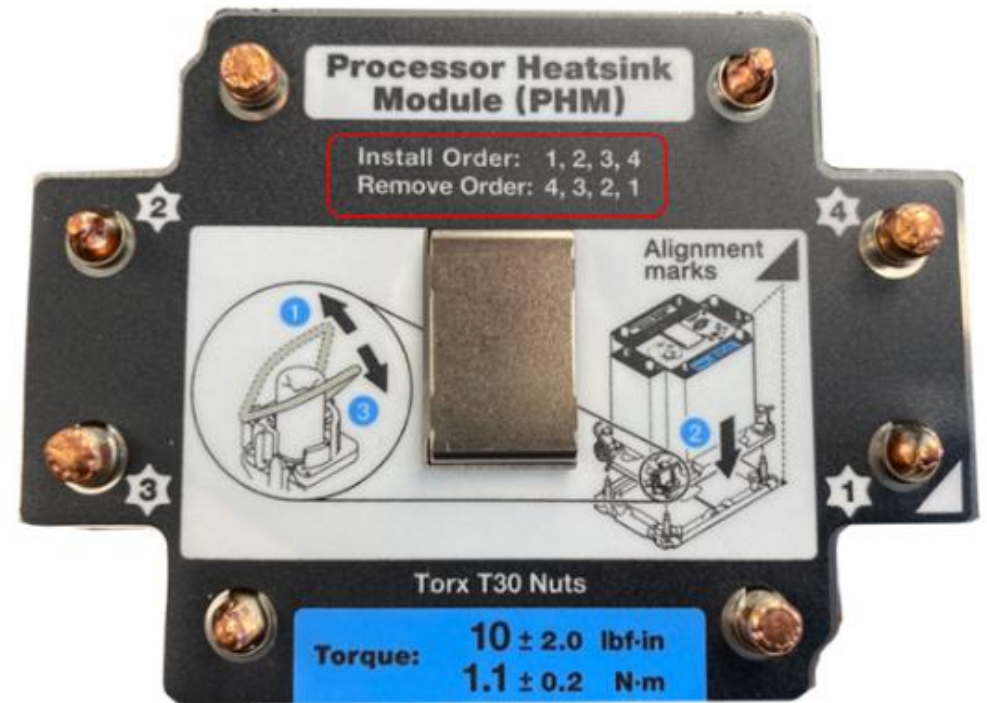
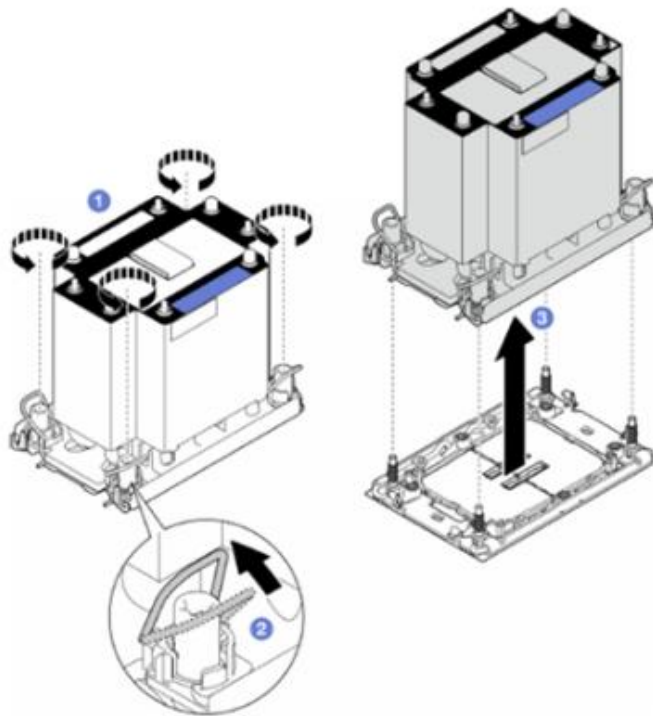
Hardware replacement tips

Part replacement highlights

Lenovo

Replacing a heat sink

The ST650 V3 heat sink replacement procedure requires a Torx T20 torque screwdriver. The ST650 V3 heat sink, processor, and system board FRU are shipped with a Torx T20 bit. Follow the removal sequence instructions and torque settings shown on the heat sink label to remove or install a heat sink.



Replacing a firmware and RoT security module

After replacing a firmware and RoT security module (RoT module), servicers must update the UEFI and LXPM firmware to the latest supported version before starting the system. If this does not happen, the system will not be able to recognize the correct firmware and will not start normally. As a result, the user will not be able to access the system OS.

Use one of the following methods to update the UEFI and LXPM firmware on the system after replacing the RoT module:

- OneCLI commands
- A USB boot kit with UEFI firmware and LXPM firmware packages
 - For more information on how to create a USB boot kit, refer to the following GLOSSE article:

[How to create USB boot kit with OneCLI for RoT replacement in the field](#)

For the complete procedures, refer to the following GLOSSE tip page:

[How to do RoT Module FW update on ThinkSystem V3 machines](#)

For more information about RoT module, refer to the following course: [ES52374 – ThinkSystem tools for the ThinkSystem V3 platform](#)

System board replacement actions

A summary of field service actions

Board (BD)	Code/Configuration	Action
System BD	VPD	Update the VPD after a board replacement
System BD	FPGA	No action: XCC will automatically check the FPGA after the reboot
System BD	SD card	If an SD card is installed, move it to the new system BD
Firmware RoT module	UEFI/XCC firmware	Board replacement requires flashing of XCC and UEFI
Firmware RoT module	UEFI/XCC configuration	Board replacement requires an XCC and UEFI configuration update – use the customer's backup or the add/change option in OneCLI scripts or XCC and F1 settings

Updating the VPD

After replacing a processor board, service personnel must update the VPD on the system board. The ST650 V3 VPD update procedure is the same as that used with Intel-based ThinkSystem models (using the `onecli config set OneCLI` command).

Servicers can also use the XCC tool (for servicers only – not available for customers) to update the VPD on an ST650 V3 server.

For more information, refer to the following documents:

- The XClarity Essentials OneCLI section of course [ES51757B Introducing ThinkSystem tools](#)
- The LXCE on ThinkSystem V3 servers section of course [ES52374 – ThinkSystem tools for the ThinkSystem V3 platform](#)
- The Update the Vital Product Data (VPD) section of the ThinkSystem ST650 V3 User Guide on [Lenovo Support](#)

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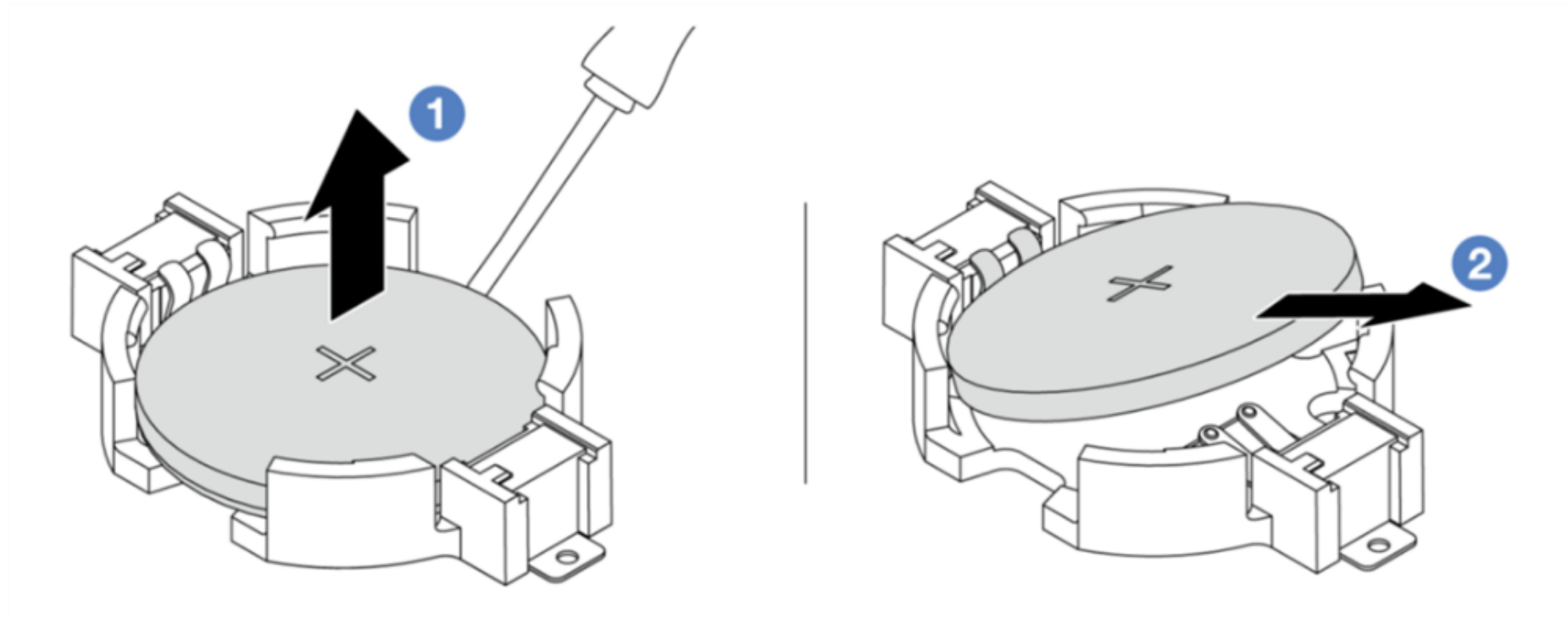
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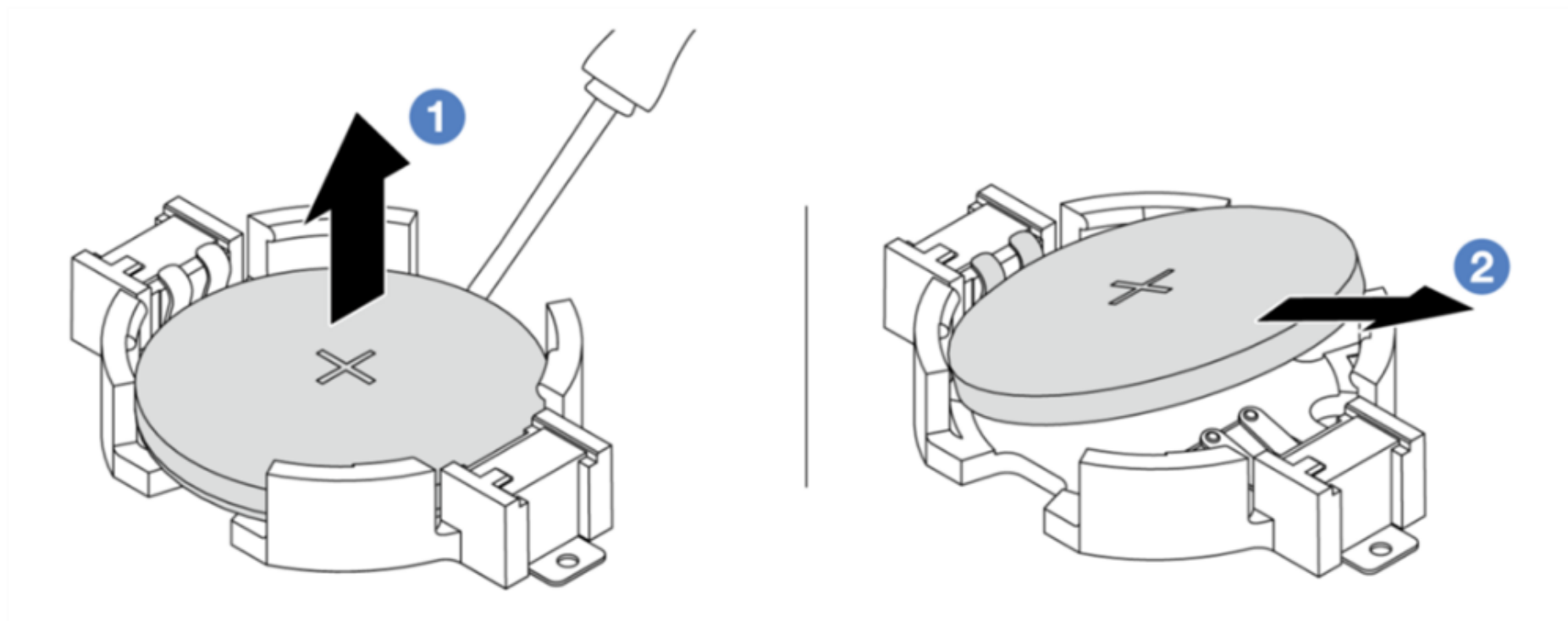
Removing a CMOS battery

To remove a CMOS battery from the ST650 V3 system board, use a flat-head screwdriver to lever the battery from the socket. Do not use your finger to tilt or push the battery, as it might damage the battery socket. Any damage to the battery socket might result in the entire processor board needing to be replaced.



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Summary

This course enabled you to:

- Describe the features and specifications of the ThinkSystem ST650 V3
- Identify the components of the ST650 V3
- Describe the configurations of the ST650 V3
- Describe the ST650 V3 management tools
- Describe the specific problem determination steps and explain how to troubleshoot issues with the ST650 V3